

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An antenna polymer useful as a photocatalyst in aqueous medium, the polymer comprising a polymeric backbone of a biodegradable water soluble polymer, and photoactive groups chemically bonded to the polymeric backbone, wherein said photoactive groups are polycyclic no more than two fused ring aromatic groups.

Claim 2 (original): An antenna polymer according to claim 1, wherein said biodegradable water soluble polymer is selected from natural and chemically modified polysaccharides.

Claim 3 (original): An antenna polymer according to claim 2, wherein said polysaccharide is selected from the group consisting of starch, hydroxyethyl starch, dextran, hydroxymethyl cellulose and hydroxyethyl cellulose.

Claim 4 (original): An antenna polymer according to claim 1, wherein said biodegradable water soluble polymer is selected from the group consisting of water soluble derivatives of proteins and water soluble derivatives of sugars.

Claim 5 (original): An antenna polymer according to claim 4, wherein said biodegradable water soluble polymer is selected from the group consisting of chitosan, hyaluronic acid, amylopectin, alginates, xanthan and carrageenan.

Claim 6 (original): An antenna polymer according to claim 1, wherein said biodegradable water soluble polymer is polyvinyl alcohol.

Claim 7 (cancelled).

Claim 8 (currently amended): An antenna polymer according to claim 1, wherein said photoactive groups ~~are selected from the group consisting of~~ comprise naphthalene, ~~anthracene, phenanthrene, and perylene.~~

Claim 9 (previously amended): An antenna polymer according to any one of claims 1 to 6 and 8, containing from 1 to 30 mole% of photoactive groups.

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Claim 10 (original): An antenna polymer according to claim 9, containing from 3 to 10 mole% of photoactive groups.

Claims 11-14 (cancelled).